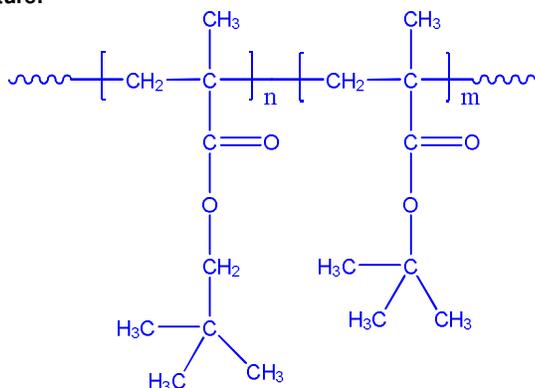


Sample Name: Poly(neopentyl methacrylate-*b*- *t*-butyl methacrylate)

Sample #: P6341-NPMA*t*BMA

Structure:

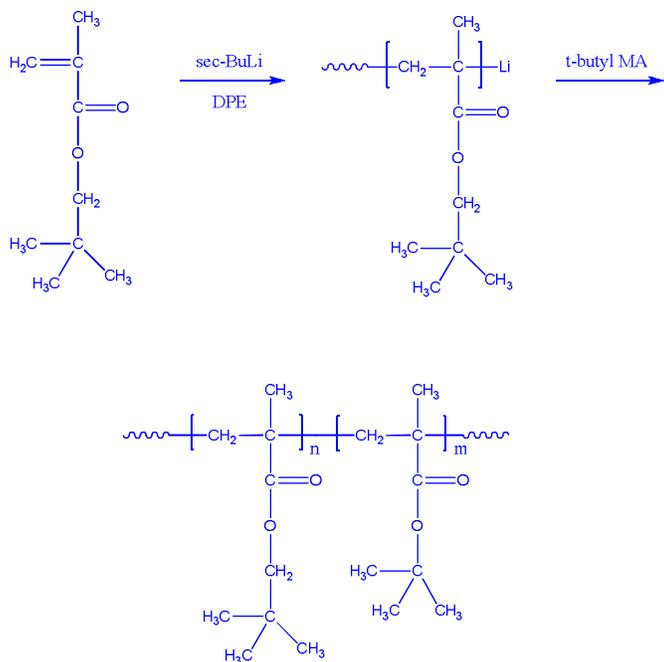


Composition:

Mn x 10 ³ PNPMA- <i>b</i> -PMAA	PDI
9.6-3.3	1.08

Synthesis Procedure:

Poly(neopentyl methacrylate-*b*-*t*-butyl methacrylate) is prepared by living anionic polymerization with sequence addition of neopentyl methacrylate followed by *t*-butyl methacrylate. The scheme of the reaction is illustrated below:



Characterization:

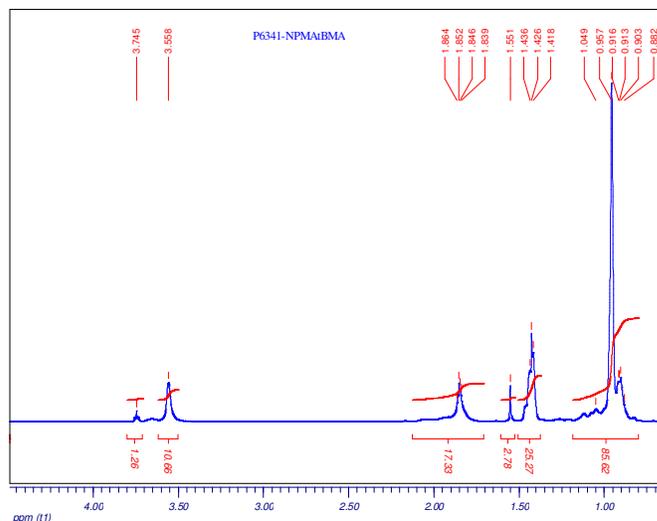
An aliquot of the anionic poly(neopentyl methacrylate) block was terminated before addition of *t*-butyl methacrylate and analyzed by size exclusion chromatography (SEC) to obtain the molecular weight and polydispersity index (PDI). The final block copolymer composition was calculated from ¹H-NMR spectroscopy by comparing the peak area of the *t*-butyl methacrylate protons at 1.43 ppm with the peak

area of the neopentyl methacrylate protons at 1.0 ppm. Copolymer PDI is determined by SEC.

Solubility:

Poly(neopentyl methacrylate-*b*-*t*-butyl methacrylate) is soluble in THF and chloroform.

¹H-NMR Spectrum of the block copolymer:



SEC of the block copolymer:

